

REMARKS/ARGUMENTS

Claims 1-25 remain in the application.

Claims 1, 3, 4, 9, 11, 18 and 24 are currently amended.

Claims 21 and 25 are currently cancelled.

5 Claims 26 and 27 are newly presented.

Claim Rejections Under 35 USC § 112

Claims 9-17 were rejected under 35 USC § 112, second paragraph. The Office Action objected to the term "indivisible" appearing in claim 9. The term is deleted, whereby the rejection is believed to be overcome.

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Claim Rejections Under 35 USC § 103

Claims 1-15 were rejected under 35 USC § 103(a) over US Patent 2,684,822 to Odin in view of US Patent 6,631,877 to Crain, et al.

15 Claims 16-25 were rejected under 35 USC § 103(a) over US Patent 6,631,877 to Crain, et al. and further in view of US Patent 6,685,385 to Ledingham.

The invention as currently amended in claim 1 is clearly patentable over the above combinations of prior art references.

20 Odin teaches a tripod supporting structure having a head 1 supported by three lockable telescoping legs 3a, 3b, 3c. Column 2, line 50-column 3, line 6. Each telescoping leg 3a, 3b, 3c is connected to the head 1 by a "flexible leg member 6." Column 3, lines 7-9. Each flexible leg "member 6 comprises a helical spring member 7 constructed of spring steel stock which is circular in cross section, over which is wound a secondary winding 8 of soft iron wire which is more or less oval in cross section." Column 3, lines 9-14.

25 Crain teaches a portable support in the form of a tripod 10 having a head 12 and three legs 14 connected to the head 12. Each leg 14 includes a fixed leg member 16, a telescoping leg member 18 and feet 20 with points 22 to help secure the tripod 10 in place. Column 5, lines 6-36.

The fixed leg member 16 of each leg 14 comprises a pair of rods 28 located on opposite sides of the telescoping leg member 18. "[T]he rods 28 and the telescoping leg member 18 are extruded (more specifically, "pultruded") from fiberglass or a similar material. Fiberglass has

desirable properties of being resistant to warping and plastic deformation, which are detrimental to the precision of the tripod 10.” Column 5, lines 37-50.

Ledingham teaches a guide rail clamp 40 having a first clamp half 42, and a second clamp half 44 adapted to be removably secured to first clamp half 42. Column 2, line 66-column 3, line 2. The clamp halves 42 and 44 are designed to grip a guide rail 90, which is generally wider at its base. Column 3, lines 7-12.

The present invention as currently recited in amended claim 1 requires each of the plurality of support legs to be of “substantially fixed length” and comprising a “solitary member” and formed of a “rod of a unitary structure.”

The phrase “solitary member” is believed to distinguish from the telescoping legs telescoping legs 3a, 3b, 3c taught by Odin as well as the telescoping legs 14 of Crain. Both Odin and Crain require their legs to be composed of multiple parts. In contrast, the “*solitary* member” limitation of the present invention is applied to the “support legs,” and requires each of the support legs to be a *single-piece* construction, since the support legs are each limited to a “solitary” member. Such *single-piece* construction type limitation is clearly impossible in the telescoping legs of Odin and Crain since, by reference to Odin and Crain, the telescoping legs require two parts with one sliding inside the other.

Furthermore, as regards Odin, the telescoping legs 3a, 3b, 3c each have a “flexible leg member 6” consisting of a helical spring member 7 over which is wound a secondary winding 8 of soft iron wire. Column 3, lines 9-14. Each of the spring 7 and wire winding 8 combinations are wrapped in a resilient tubular cover 16 of rubber or the like. Column 3, lines 31-41. The multiple parts of Odin’s “flexible leg member 6” clearly fail to disclose or suggest the single-piece construction required of the “*solitary* member” limitation of the present invention for each of the support legs. Rather, the “flexible leg member 6” requires the complementary spring 7 and wire winding 8 to operate as intended for making the leg member 6 flexible.

Similarly, the legs 14 taught by Crain each requires two parts: a fixed leg member 16 and a telescoping leg member 18. Column 5, lines 6-36.

Thus, Odin and Crain cannot disclose or suggest the “*solitary* member” limitation of the present invention at least because such limitation would render their respective “telescoping” legs

impossible and thus unsatisfactory for its intended purpose of “telescoping.” See, e.g., *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

The phrase “unitary structure” is believed to further distinguish from the telescoping legs telescoping legs 3a, 3b, 3c taught by Odin as well as the telescoping legs 14 of Crain. The term
5 “unitary” is defined as: having the character of a unit: UNDIVIDED, WHOLE. Merriam-Webster’s Collegiate Dictionary, Tenth Ed.

The “telescoping” nature of the legs taught by both Odin and Crain inherently require the legs to be composed of multiple divided parts, else the legs could not “telescope.” In contrast, the “unitary structure” of the present invention requires the solitary rod of each support leg to be in
10 itself a “unitary” or single-piece construction, which is clearly impossible in the telescoping legs of Odin and Crain since, by reference to Odin and Crain, the telescoping legs require two divided parts with one sliding inside the other.

Thus, because both Odin and Crain rely on “telescoping” legs, both Odin and Crain require their respective legs 3a, 3b, 3c and 14 to have at least two divided parts with one part
15 sliding relative to the other. Such multi-part legs cannot logically disclose or suggest the “unitary structure” required by the present invention.

Additionally, the present invention as currently recited in amended claim 1 requires each of the support legs to be of substantially “*fixed* length.” The limitation of “fixed length” clearly distinguishes the present invention since the “telescoping” legs of both Odin and Crain require the
20 legs to be able to *change* length. For example, Odin recites, “The head is supported by three legs 3a, 3b and 3c, each comprising a rigid upper section 4 formed from a tubular material or the like, in which is retractably mounted cylindrical sections 5.” Odin at column 2, line 54-column 3, line 3.

Similarly, Crain recites, “The leg 14 also includes a telescoping leg member indicated generally at 18, which is connected to the fixed leg member for sliding motion relative to the fixed
25 leg member between a fully extended position and a fully retracted position.” Crain at column 5, lines 23-27.

Obviously, the “telescoping” legs of both Odin and Crain cannot be of “fixed length” since the nature of “telescoping” demands that the legs be of *changeable* length. Thus, the “telescoping” legs of both Odin and Crain cannot disclose or suggest the “fixed length” limitation
30 of the present invention at least because such limitation would render their respective

“telescoping” legs impossible and thus unsatisfactory for its intended purpose of “telescoping.”
See, e.g., *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Thus, both Odin and Crain fail to disclose or suggest a support leg being of “*fixed* length” as currently recited in claim 1.

5 Furthermore, taken as a whole leg member 6 as taught by Odin, which include the spring 7 and wire winding 8 parts, when taken as a whole cannot disclose or suggest the “rod of *unitary* structure,” as recited in the present invention. Rather, as discussed herein above, the term “unitary” is defined as: having the character of a unit: UNDIVIDED, WHOLE. Merriam-Webster’s Collegiate Dictionary, Tenth Ed. The multiple parts required by Odin’s leg member 6 cannot be “unitary”
10 according to its dictionary definition.

 Similarly, taken as a whole leg member the telescoping legs 14 of Crain, which include a fixed leg member 16 and a telescoping leg member 18, which fixed leg member 16 in itself includes comprises a pair of rods 28 located on opposite sides of the telescoping leg member 18. Thus, when taken as a whole the multiple parts required by telescoping legs 14 of Crain cannot
15 disclose or suggest the “rod of *unitary* structure,” as recited in the present invention when the term “unitary” is applied according to its dictionary definition.

 Furthermore, by definition a “rod” is a “straight slender stick” or a “slender bar.” See, e.g., Merriam-Webster’s Collegiate Dictionary, Tenth Ed. The spring 7 and wire winding 8 parts of Odin cannot disclose or suggest even the “rod,” as recited in the present invention.

20 Similarly, the multiple parts of the telescoping legs 14 of Crain, when taken as a whole, also cannot even disclose or suggest the “rod,” as recited in the present invention.

 The guide rail clamp 40 of Ledingham adds nothing to provide the above deficiencies of Odin and Crain.

 For at least the above reasons, the invention as presently recited in claim 1 is believed to be
25 allowable over any combination of Odin, Crain and Ledingham.

 Claims 2-8 are allowable at least as depending from allowable base claim 1.

 Claim 3 is further allowable as reciting the “securing means further comprises means for permanently securing the second end portion of one or more of the plurality of support rods
30 relative to an external surface.”

In contrast, neither Odin, Crain, nor Ledingham discloses or suggests any means for “permanently securing” their respective legs tripod legs 3a, 3b, 3c and 14 to “an external surface.” Rather, both Odin and Crain teach tripods because they are *portable*. See, e.g., Crain: “Referring now to the drawings, and in particular to FIG. 1, a portable support of the present invention in the form of a tripod is designated generally at 10.” Column 5, lines 6-8.

Thus, Odin and Crain cannot disclose or suggest the “means for permanently securing ... to an external surface” limitation of the present invention at least because such limitation would render their respective “portable” tripods non-portable and thus unsatisfactory for its intended purpose of providing a “portable” support. See, e.g., *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Furthermore, neither Odin, Crain, nor Ledingham actually discloses or suggests any such means for “permanently securing.”

Odin teaches the ground ends of the tripod legs 3a, 3b, 3c being hemispherical knobs having no means for attaching or securing to any surface at all. See, e.g., Figure 1. Nothing in the disclosure adds any securing means to the view illustrated in Figure 1. See, Odin, generally.

Regarding the Office Action assertion that the members (5) are means for securing the second ends portions of the support rods relative to an external surface, the applicant disagrees. Rather, as pointed out immediately above, Odin teaches the ground ends of the tripod legs 3a, 3b, 3c being hemispherical knobs having no means for attaching or securing to any surface at all. See, e.g., Figure 1.

Furthermore, Odin teaches the members 5 being “retractably mounted cylindrical sections ... each being rigidly locked in its desired position relative to its section 4 by any suitable means. Column 2, line 54-column 3, line 6.

In fact, Odin teaches the leg members 5 being “locked in the desired relative positions” before the tripod is “placed on the ground or other supporting surface.” Column 4, lines 1-6. Accordingly, Odin teaches the members 5 being locked only relative to the other leg section 4. Odin does not teach the members 5 being a “means for permanently securing the second end portion of one or more of the plurality of support rods relative to an external surface,” as recited in claim 3.

Similarly, Crain also does not disclose or suggest any “means for permanently securing the second end portion of one or more of the plurality of support rods relative to an external surface,” as recited in claim 3. Rather, Crain only teaches, “Points 22 on the bottom end of the feet 20 can penetrate the ground to help secure the tripod 10 in place.” Column 5, lines 32-33.

5 Clearly the “points 22” on the bottom of Crain’s feet 20 cannot provide means for permanently securing the feet 20, at least because also provides pedals 24 “used to apply a downward force on the foot for penetrating the ground to firmly plant the foot in the ground.” Obviously, “portable” nature of the Crain’s tripod 10 (column 5, lines 6-8) makes clear that applying a “downward force” to “firmly plant the foot in the ground” means that a mere upward
10 force frees the foot. Thus, the points 22 do not disclose or suggest “means for permanently securing,” as recited in claim 3.

For at least the above reasons, claim 3 is believed to be further allowable independently of allowable base claim 1, and reconsideration and allowance are respectfully requested.

15 Claim 9 as amended herein differs in scope from allowable claim 1. However, the above arguments and reasons for allowance directed to claim 1 are sufficiently applicable to claim 9 as to make repetition unnecessary. Thus, for each of the reasons above, claim 9 is believed to be allowable.

Furthermore, claim 9 is amended to include the limitation of the “solitary metal rod” being both “of single-piece construction” and “of nonextensible elongated length.” Odin and Crain both
20 fail to disclose or suggest either of these limitations. Rather, such limitations are impossible with the “telescoping” legs as taught by both Odin and Crain. Therefore, such teaching would render their respective “telescoping” legs impossible and thus unsatisfactory for its intended purpose of “telescoping.” See, e.g., *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Accordingly, Odin and Crain both teach away from both limitations of “single-piece construction”
25 and “nonextensible elongated length,” as recited in amended claim 9.

Additionally, the limitation of “each of the rods being substantially independently permanently bendable in three dimensions along substantially an entire length between the first and second end portions,” is not disclosed or suggested by either Odin or Crain.

Odin only teaches the upper leg section 6 being flexible. Column 3, lines 7-41. In contrast
30 to the present invention, Odin teaches the lower leg sections 4 being rigid. Column 2, line

54-column 3, line 6. Obviously, Odin cannot disclose or suggest the limitation of “each of the rods being substantially independently permanently bendable in three dimensions along substantially an entire length between the first and second end portions,” at least because Odin teaches the lower leg sections 4 being “rigid.”

5 Crain teaches the legs 14 being formed of a fixed and telescoping members 16 and 18. Column 5, lines 21-27. The fixed leg members 16 have rods 28, which rods 28 and the telescoping leg member 18 are “extruded (more specifically, “pultruded”) from fiberglass or a similar material. Fiberglass has desirable properties of being resistant to warping and plastic deformation, which are detrimental to the precision of the tripod 10.” Column 5, lines 37-50. Thus, Crain teaches only
10 rigid leg members 16 and 18 for each leg 14.

 Obviously, the fact that both Odin and Crain teach the legs being rigid at least in part clearly distinguishes the present invention which rod legs are “substantially independently permanently bendable in three dimensions along substantially an entire length between the first and second end portions.” The legs 3a, 3b, 3c of Odin are only bendable at all in the flexible upper
15 leg section 6. Column 3, lines 7-41. The legs 14 of Crain are *completely rigid* so that they must be pivoted, “The legs 14 are pivotally attached to the head 12 for movement between a use position (shown in FIG. 1) where the legs are spread apart, and a collapsed position where the legs are closer together.” Column 5, lines 18-21.

 Another limitation that distinguishes the invention of claim 9 from the prior art is “a shoe
20 mechanism coupled to the second end portions of one of the plurality of support rods, the shoe mechanism being structured for *receiving a mechanical fastener* for permanently securing the respective second end portion in a *fixed* position relative to an external surface.”

 As discussed herein above regarding dependent claim 3, in contrast to the present invention, neither Odin, Crain, nor Ledingham discloses or suggests any means for “permanently
25 securing” their respective legs tripod legs 3a, 3b, 3c and 14 to “an external surface.” Rather, both Odin and Crain teach tripods because they are *portable*. See, e.g., Crain: “Referring now to the drawings, and in particular to FIG. 1, a portable support of the present invention in the form of a tripod is designated generally at 10.” Column 5, lines 6-8. Thus, such limitation would render their respective “portable” tripods non-portable and thus unsatisfactory for its intended purpose of

providing a “portable” support. See, e.g., *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Furthermore, Odin teaches the ground ends of the tripod legs 3a, 3b, 3c being hemispherical knobs having no means for attaching or securing to any surface at all. See, e.g., Figure 1.

5 Crain teaches: “Points 22 on the bottom end of the feet 20 can penetrate the ground to help secure the tripod 10 in place.” Column 5, lines 32-33.

Clearly, both the hemispherical knobs of Odin, and the points 22 of Crain fail to provide any “shoe mechanism,” as recited in claim 9. Furthermore, Odin and Crain both fail to provide a shoe mechanism being “structured for receiving a mechanical fastener,” and especially a mechanical
10 fastener “for *permanently* securing the respective second end portion in a *fixed* position relative to an external surface.” The simplicity of the hemispherical knobs and points of Odin and Crain simply cannot disclose or suggest such limitations – they just do not have enough structure to support such interpretation.

Therefore, for at least the above reasons, claim 9 is believed to be further allowable
15 independently of the above arguments and reasons for allowance directed to claim 1, and reconsideration and allowance are respectfully requested.

Claims 10-17 are allowable at least as depending from allowable claim 9.

20 Claim 18 as amended herein differs in scope from allowable claims 1 and 9. However, the above arguments and reasons for allowance directed to claims 1 and 9 are sufficiently applicable to claim 18 as to make repetition unnecessary.

Additionally, claim 18 is amended to clearly distinguish the “telescoping” legs of Odin and Crain from the “non-telescoping” support legs of the present invention. No new matter is added.
25 See, Specification: “The support rods 12 are legs either all of a single length, or of two different lengths, or of all different lengths, as appropriate to a particular application. It is intended that the lengths be set during manufacturing by shortening from a standard length. However, the lengths may all be identical at the time of shipment from the factory and later modified as appropriate by an installer or end user.” Page 5, line 29-page 6, line 3.

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Claims 19, 20 and 22-24 are allowable at least as depending from allowable claim 9.

Claims 21 and 25 are cancelled, whereby the rejection as to these claims is made moot.

Response to Examiner's Response to Arguments

5 The examiner argued that the interior of the support rods of Odin are each a single rod and therefore "solitary." The examiner further argued that the spring and wire winding are "not support rods, but are part of the support rod."

 The examiner has therefor argued the applicant's point as to the present invention being distinguished at least by the limitation that each of the support rods comprises "a *solitary* member."

10 The single rods of Odin are "solitary" because they are "single rods." But the "solitary" rods are not comprised of "a *solitary* member" because they include the spring and wire winding, which are "not support rods, *but are part of* the support rod."

 See, also, the limitations of "single-piece construction" recited in base claims 9 and 18.

 Therefore, the examiner has already agreed that the claims, as currently amended, are
15 distinguished from the prior art.

 For at least the above reasons, the invention as presently recited in the claims is believed to be allowable over any combination of Odin, Crain and Ledingham, and reconsideration and allowance is respectfully requested.

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Other Amendments

 Claims 3, 4 and 11 are currently amended to remain consistent with the base claims from which they depend. Amendments of claims 3, 4 and 11 are not believed to be necessary to patentability.

25

Newly Presented Claims

 Claims 26 and 27 are newly presented.

 Claim 26 is allowable at least as depending from allowable base claim 1.

Claim 26 is further allowable independently of allowable base claim 1 as reciting “each of the plurality of support rods further comprises an integral lengthwise portion between the first and second end portions being substantially independently permanently bendable in three dimensions along substantially an entire length thereof between the first and second end portions,” wherein
5 referring to claim 1 the first end portions are clamped in a fixed arrangement, and the second end portions include means for securing them relative to an external surface.

In contrast, Odin teaches only the upper leg member 6 being “flexible” (Column 3, lines 9-14), with the first or upper ends being connected to the head 1 (column 3, lines 7-9). But the second or lower ends are secured by a sleeve 15 to the tubular section 4 of its corresponding rigid leg. Column
10 3, lines 24-31.

Accordingly, although claim 26 differs in scope from allowable claim 9, the above arguments and reasons for allowance directed to claim 9 are sufficiently applicable to claim 26 as to make repetition unnecessary. Thus, for each of the reasons above, claim 26 is believed to be allowable.

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Claim 27 is allowable at least as depending from allowable base claim 9.

Claim 27 is further allowable independently of allowable base claim 9 as reciting “the nonextensible elongated length of a first one of the unitary support rods further comprises a first nonextensible length different from a second nonextensible length of a second one of the unitary
20 support rods.”

In contrast, the tripods of both Odin and Crain are taught as having leg portions of substantially identical length, whereby the tripods are stable. For example, neither Odin nor Crain make any distinction between the construction of the different legs. See, Odin and Crain, generally. The present invention clearly states that the “nonextensible” length of different leg rods
25 can be different. “The support rods 12 are legs either all of a single length, or of two different lengths, or of all different lengths, as appropriate to a particular application.” See, Specification Page 5, line 29-31.

Accordingly, although claim 27 differs in scope from the “non-telescoping” support legs of allowable claim 18, the above arguments and reasons for allowance directed to allowable claim 18

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are sufficiently applicable to claim 27 as to make repetition unnecessary. Thus, for each of the reasons above, claim 27 is believed to be allowable.

The claims now being in form for allowance, reconsideration and allowance is respectfully
5 requested.

Claim Count

The claim count is unchanged: dependent claims 26 and 27 are newly presented, but dependent claims 21 and 25 are currently cancelled. Therefore, a same number of claims are added and cancelled.

10 The claim count remains unchanged. Therefore, no fee is believed due.

If the Examiner has questions or wishes to discuss any aspect of the case, the Examiner is encouraged to contact the undersigned at the telephone number given below.

Respectfully submitted,

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